

REMARKS

In the non-final office action mailed December 7, 2007, claims 1-51 were pending and stand rejected. Claims 7, 22, 26, 34, 35, 43 and 46 have been amended in this response. Reconsideration of the present application as amended and in view of the remarks that follow is respectfully requested.

Claim 22 has been amended to correct a typographical error. Entry of the same is respectfully requested.

Claims 26-27, 32-35 and 40-47 stand rejected under 35 USC §102(b) as anticipated by U.S. Patent No. 4,263,899 to Burgin. Burgin discloses an instrument that includes first and second members 62 mounted to a base 12. Members 62 are mounted on elongated shafts 56 that are rotatably mounted in base members 14 and 20 at their distal portions 18 and 24 respectively. See col. 3, lines 40-43. Shafts 56 extend through apertures 21 located in distal portions 18 and 24 and into member 50 on an opposite side of base 12 from members 62. Members 50 have crown gear teeth 53 that engage teeth in rings 52 to prevent shafts 56 from rotating from a selected rotation position. See col. 3, lines 44-50. An alternate means for securing shafts 56 includes thumbscrews 54 threaded into apertures located in base members 20 and 14. See col. 3, lines 51-65. Each member 62 is mounted to a respective shaft 56 and includes means 60 that prevent members 62 from rotation relative to shaft 56 so that members 62 follow rotation of shaft 56. See col. 4, lines 42-52. Thumb screws 68 are provided to maintain members 62 in a desired axial position along shafts 56. See col. 4, lines 53-60. In order to rotate shafts 56 and thus move distal ends 64 of members 62, knobs 50 are pulled to disengage the teeth 53 from rings 52, and knobs 50 are rotated so that shafts 56 achieve the desired position. Knobs 50 are released and biased to re-engage rings 52, or alternatively locked in position with thumbscrews 54. See col. 5, lines 26-34 and lines 44-49.

Amended claim 26 is directed to a retractor assembly that includes first and second retractor portions, a separation instrument extending along a first axis that includes engagement arms extending from the retractor portions along axes transverse to the first axis, and "wherein said engagement arms each include a rotatable portion adjacent said respective retractor portion that is rotatable about said respective axis thereof to pivot said respective retractor portion engaged thereto about its proximal end, said engagement arms

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further each including a second portion extending between said separation instrument and said rotatable portion, wherein said second portion is fixed relative to said separation instrument when said rotatable portion is rotated." Burgin does not disclose at least these features of claim 26. In contrast, shafts 56 along with rectangular portions 61 mounted to members 62 rotate when the distal ends of members 62 are pivoted. Since there is no disclosure or teaching of these features of claim 26 in Burgin, withdrawal of the rejection of claim 26 is respectfully requested.

Claims 27, 32-35 and 40-42 depending from claim 26 also distinguish Burgin. For example, amended claim 34 recites "further comprising a lever arm coupled to said rotatable portion of each of said engagement arms and extending from said rotatable portion at a position between said separation instrument and said respective retractor portion..." Burgin discloses that knob 50 located on the side of base 12 opposite member 62 is rotated to pivot member 62. Therefore, Burgin does not disclose claim 34. Amended claim 35 recites "further comprising a lever arm locking assembly on said rotatable portion of each of said engagement arms, said lever arm locking assemblies each being releasably engageable with an engagement portion of said second portion of said engagement arm, wherein said engagement portion is positioned on an end of said second portion opposite said separation instrument." Burgin discloses teeth 53 and ring 52 that are located on shaft 56 and on base 12. Therefore, it does not disclose the features of claim 35. Withdrawal of the rejection of these claims depending from claim 26 is respectfully requested.

Amended claim 43 recites, among other features, "wherein said lever arm is positioned along said respective engagement arm at a location between said separation instrument and said respective retractor portion." Burgin discloses that knob 50 is located on base 12 at an end of shaft 56 that is on the opposite side of base 12 from member 62. Furthermore, to the extent thumbscrew 68 could be considered to be a lever arm, it is not located between member 62 and base 12. Therefore, Burgin fails to disclose the features arranged as recited in claim 43, and withdrawal of the rejection of claim 43 is respectfully requested.

Claims 44-47 depend from claim 43 and are allowable at least for the reasons claim 43 is allowable and for other reasons. For example, amended claim 46 recites "further

comprising a mounting member extending from each of said rotatable portions, wherein each of said lever arms is pivotally mounted to a respective one of said mounting members and extends transversely to said respective axis of said engagement arm in a first position and is pivotal from said first position to a second position extending along said respective axis." There is no disclosure in Burgin of a lever arm with these features. Withdrawal of the rejection of claims 44-47 depending from claim 43 is respectfully requested.

Claims 1-19, 21, 23-25, 28, 36-39 and 48-51 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Burgin in view of U.S. Patent No. 6,196,969 to Bester et al. Claim 1 recites, among other features, "said first retractor portion and said second retractor portion each includes an engagement member extending laterally therefrom for engagement by said separation instrument; one of said engagement members of said first retractor portion and said retractor second portion includes at least one alignment member extending toward said engagement member of the other of said first retractor portion and said second retractor portion; and said engagement member of the other of said first retractor portion and said second retractor portion includes at least one receptacle for receiving said at least one alignment member."

Neither Burgin nor Bester et al. teach or suggest any engagement member extending laterally from the retractor portion that includes an alignment member extending toward the engagement member of the other retractor portion with the engagement member of the other retractor portion including a receptacle to receive the alignment member. Burgin discloses members 62 mounted on shafts 56 that extend laterally from members 62 to base 12. However, neither of shafts 56 or the structure mounted thereto includes an alignment member that is received in a receptacle in the other shaft 56, as clearly shown in Figures 1, 7, 9 and 10. Bester et al. disclose arms 11, 12 with lower portions 16 and 23 extending laterally from claws 18, 25, respectively. However, neither of these lower portions includes the claimed alignment member and receptacle either. Therefore, a prima facie case for rejecting claim 1 has not been established, and withdrawal of the rejection of claim 1 is respectfully requested.

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Claims 2-6, 17-19, 21, and 23-25 depend from claim 1 and are allowable at least for the reasons claim 1 is allowable. Withdrawal of the rejection of these claims is respectfully requested.

Amended claim 7 recites, among other features, "wherein each of said connection assemblies includes an engagement arm coupled to said respective said retractor portion, an extension arm extending from said engagement arm along a second axis that is transverse to said axis extending between said first and second retractor portions, said engagement arm being rotatable about said second axis and relative to said extension arm to pivot said distal end of said respective retractor portion along said axis while said extension arm remains fixed relative to said second axis." As discussed above, Burgin teaches that the entire shaft 56 and the structure mounted to shaft 56 is rotated when members 62 are pivoted by rotating shaft 56. There is no structure extending from members 62 along a second axis that is transverse to the axis extending between members 62 that remains fixed relative to the second axis while members 62 are pivoted. Bester et al. provide no teaching or suggestion of any coupling arrangement of claws 18, 25 that allows the distal ends of claws 18, 25 to pivot along the axis extending between claws 18, 25. Therefore, the combination of references fails to teach or suggest all the elements of claim 7, and withdrawal of the rejection of claim 7 is respectfully requested.

Claims 8-16 depend from claim 7 and are allowable at least for the reasons claim 7 is allowable. In addition, Bester et al. was asserted to teach a lever arm locking assembly with a pawl. However, Bester et al. teach a ratcheting arrangement on the intermediate retractor to maintain a position of central claw 46 between claws 18 and 25. There is no disclosure of any locking arrangement associated with claws 18, 25 that includes a pawl to maintain a rotated position of an extension arm to which claws 18, 25 are mounted. Nor is there any teaching or suggestion of the detailed interrelationship of components recited in claims 10-13. Nor does either reference teach or suggest the intermediate member between the engagement arm and the extension arm that includes an engagement portion to maintain the rotated position of the engagement arm to which the retractor portion is mounted as recited in claim 14. Withdrawal of the rejection of these claims depending from claim 7 is respectfully requested.

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Claims 36-39 depend from claim 26. Bester et al. fail to provide any teaching or suggestion of the features of claim 26 missing from Burgin. Furthermore, Bester et al. do not teach the recited interrelationship between the components of the claimed assembly of claims 36-39. Thus, claims 36-39 are allowable at least for the reasons claim 26 is allowable. Withdrawal of the rejection of these claims is respectfully requested.

Claims 48-51 depend from claim 43. Bester et al. fail to provide any teaching or suggestion of the features of claim 43 missing from Burgin. Furthermore, Bester et al. do not teach the recited interrelationship between the components of the claimed assembly of claims 36-39. Thus, claims 48-51 are allowable at least for the reasons claim 43 is allowable. Withdrawal of the rejection of these claims is respectfully requested.

Claim 22 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Burgin in view of Bester et al. and further in view of U.S. Patent No. 4,380,999 to Healy. Claim 22 depends from claim 1 and is allowable at least for the reasons claim 1 is allowable since Healy fails to supply any teaching or suggestion of the features in claim 1 missing from Burgin and Bester et al. Withdrawal of this basis of the rejection is respectfully requested.

Claims 18, 19, 20, and 29-31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Burgin in view of Bester et al. and further in view of U.S. Patent No. 6,139,493 to Koros et al. Claims 18-19 depend from claim 1. Koros et al. fail to provide any teaching or suggestion of the features of claim 1 missing from Burgin and Bester et al. as discussed above. Koros et al. also fail to teach or suggest the arrangement of elements recited in claims 18-19 as discussed below with respect to claim 20. Therefore, claims 18-19 are allowable and withdrawal of the rejection of these claims is respectfully requested.

Claim 20 recites an arrangement of elements between the separation instrument, the intermediate retractor assembly and the second intermediate retractor assembly that is not taught by the cited references. Claim 20 recites, among other features, "wherein said separation instrument includes first and second engagement arms extending from respective ones of said first and second retractor portions and a coupling arm extending between said first and second engagement arms...." and "said intermediate retractor assembly including a linking arm extending from said separation instrument toward said first and second retractor portions to a retractor blade... wherein said linking arm includes a hook portion that is

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mounted to said separation instrument when said first and second retractor portions are in said second configuration, wherein said linking arm of said intermediate retractor assembly is removably engageable to said coupling arm....” Claim 20 also recites “wherein said second intermediate retractor assembly includes a second linking arm coupled to said linking arm and extending to said second retractor blade....”

In contrast to claim 20, Burgin is silent as to any intermediate retractor assembly, and Bester et al. teach a single intermediate retractor extending from the separation instrument. Koros et al. teach the use of multiple separation instruments to provide four retractors positioned around the incision, but the multiple separation instruments are not coupled to one another. Rather, as shown in Figure 4 of Koros et al., fixed arm 20 of separation instrument 12 crosses movable arm 22 of separation instrument 10. If arms 20, 22 were coupled to one another, then arm 22 could not move, contrary to the teachings of Koros et al. See col. 7, lines 44-47. Accordingly, the references fail to teach or suggest the combination of elements arranged in the manner recited in claim 20. Therefore, withdrawal of the rejection of claim 20 is respectfully requested.

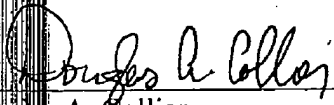
Claims 29-31 depend from claim 26. Koros et al. fail to provide any teaching or suggestion of the features of claim 26 missing from Burgin and Bester et al. as discussed above. Furthermore, as discussed above with respect to claim 20, Koros et al. fail to supply the teaching of the elements arranged in the manner recited in claims 29-31. Therefore, claims 29-31 are allowable and withdrawal of the rejection of these claims is respectfully requested.

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The present application is believed in condition for allowance. Reconsideration of the present application as amended and including claims 1-51 is respectfully requested. A notice of allowance is hereby solicited. The examiner is welcome to contact the undersigned to resolve any outstanding issues with regard to the present application.

Respectfully submitted:

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